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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,845	04/02/2001	Haruhiko Nagura	23634X	8608

20529 7590 01/19/2005

NATH & ASSOCIATES
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WASHINGTON, DC 20005

EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,845

Applicant(s)

NAGURA ET AL.

Examiner

Hien Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 21-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-11 and 21-24 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

Election/Restrictions

1. The cancellation of the non-election invention, claims 12-20, filed on 11/05/04 has been acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-4, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honma (5,323,608) in view of Retallick (4,576,800).

Honma discloses a catalytic converter comprising:

a tubular member 12 having a wall, the tubular member 12 having an inlet and an outlet;

a carrier 14 contained in the tubular member; the carrier including a series of sheets; the

sheet being superposed with each other; and

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an engaging plate (16, 40, 60) crossing the sheet and being engaged with the series of sheet.

The apparatus of Honma is substantially the same as that of the instant claims, but fails to disclose the specific structure of the carrier as claimed, e.g. the sheet is folded successively back into a series of sheets and extends transversely between a point and another point on the inner wall.

However, Retallick discloses the conventionality of providing different types of carriers, such as the one having a sheet being folded successively back into a series of sheets extending transversely between one point and another point on the inner wall (Figs. 4-8).

Since the shape of the carrier is not considered to confer patentability to the claim, it would have been obvious to one having ordinary skill in the art to select an appropriate shape for the catalyst carrier, such as the one taught by Retallick in the apparatus of Honma on the basis of its suitability for the intended use as a matter of obvious design choice since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

5. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honma (5,323,608) in view of Retallick (4,576,800) as applied to claims 1-4, 21-24 above and further in view of Hitachi et al (5,177,960) and either DE 3,844,350 or Freund (5,384,100) or Nonnenmann (4,665,051).

Hitachi et al '960 discloses the conventionality of providing different shapes for the carriers, such as the one having corrugated form having flat rack portions (Fig. 1).

DE 3,844,350, Nonnenmann and Freund disclose provision of a catalyst carrier having third and fourth convex portions being partitioned by two cuttings.

It would have been obvious to one having ordinary skill in the art to provide the catalyst carrier in the modified apparatus of Honma with different shapes of corrugations as taught by Hitachi '960 having cuttings as taught by DE 3,844,350 or Freund or Nonnenmann on the basis of its suitability for the intended use as a matter of obvious design choice and for enhancing the turbulence of the exhaust flowing therethrough, thereby increasing the effectiveness of the catalyst carrier.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honma (5,323,608) in view of Retallick (4,576,800) as applied to claims 1-4, 21-24 above and further in view of Hitachi et al (5,374,402).

The modified apparatus of Honma is substantially the same as that of the instant claims, but fails to disclose whether the carrier may be folded in S-shape.

However, Hitachi et al '402 discloses the conventionality of providing a catalyst carrier folded in S-shape.

It would have been obvious to one having ordinary skill in the art to alternately fold the carrier in S-shape as taught by Hitachi et al '402 in the modified apparatus of Honma on the basis of its suitability for the intended use as a matter of obvious design choice since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Response to Arguments

7. Applicant's arguments with respect to claims 1-11, 21-24 has been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kanniainen et al, Hitachi et al (5,163,291), Weber et al, and Reck et al are cited for showing state of the art.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT

Hien Tran
Hien Tran
Primary Examiner
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